US Army Corps of Engineers ®
St. Paul District
www.mvp.usace.army.mil
Public Affairs

Corps Facts

Conserving native mussels

Sept. 14, 2006
FS-30

Relocation plan for the endangered Higgins' eye pearlymussel

The U.S. Army Corps of Engineers, St. Paul District, began a 10-year effort to reestablish the endangered, native Higgins' eye pearlymussel in the Upper Mississippi River system in May 2002. The objective is to establish a minimum of five new and viable populations, with a minimum of 500 mussels each, in the river system or its tributaries. Attempts to establish new populations are happening at 10 sites in Iowa, Minnesota and Wisconsin.

Federally endangered Higgins' eye pearlymussel

The relocation plan involves collecting adult Higgins' eye pearlymussels from areas heavily infested with zebra mussels, the enemy of the Higgins' eye, and cleaning and moving them to an area with little or no zebra mussels. Relocation efforts will also involve raising juvenile mussels on host fish species and at hatcheries, with subsequent stocking at selected relocation sites. A monitoring program to evaluate the long-term effectiveness of the relocation is included in the plan. The Corps of Engineers additionally began, in a separate yet interrelated effort, a feasibility study on how to control the zebra mussel for the long-term.

Project accomplishments to date

As of October 2004, more than 10,000 juvenile Higgins' eye have been artificially propagated and reared in cages with more than 2,800 age 2 or 3 reintroduced to sites in Mississippi River pools 2, 3, and 4. Stocking efforts will continue at these sites and are planned for the Rock River (Illinois), Mississippi River pool 17, and a site to be determined. Nearly 500 adult Higgins' eye have been relocated from heavily infested zebra mussel waters to Mississippi River pools 2 and 3. Since 2000, more than 20,000 inoculated fish averaging approximately 300 glochidia each, have been placed in open bottom cages in the Wisconsin River and released into four tributary rivers in Wisconsin (Wisconsin River) and Iowa (Iowa, Cedar and Wapsipinicon rivers). Reintroduction efforts will continue through at least 2007 followed by monitoring and augmentation of the populations as needed.

A long-term program to monitor trends in abundance and distribution of Higgins eye and other native mussels in essential habitat areas and secondary habitats has been ongoing since 2000. Seven to eight areas are sampled annually. Trends in abundance and distribution of zebra mussels in the Upper Mississippi River are also being collected at these areas. Zebra mussel veliger densities are being monitored on the river's main stem from above the head of navigation in Minneapolis to Pool 24 and all major tributaries.

Project background and cooperating agencies

The Corps' $2.4 million relocation plan took two years to develop. It stems from an April 2000 U.S. Fish and Wildlife report that stated continued operation of the nine-foot channel on the Upper Mississippi River system would likely jeopardize the continued existence of the Higgins' eye. To explain, the Asian native zebra mussels were transported up the Upper Mississippi River by commercial barges and recreational craft. These zebra mussels cover the native mussels completely, so the native mussels can't open up and they die.

-More-

-Continued-

The Corps of Engineers is the lead agency in this relocation effort, as well as a partner in the government-sponsored Mussel Coordination Team that looks at all mussel-related activities. The members include the National Park Service, the U.S. Army Corps of Engineers, the U.S. Coast Guard, the U.S. Fish and Wildlife Service, the U.S. Geological Survey and the departments of natural resources from Illinois, Iowa, Minnesota and Wisconsin, as well as the Science Museum of Minnesota.

Project authority

The River and Harbor Act of July 3, 1930, which authorizes the nine-foot channel navigation project on the Upper Mississippi River, provides authority for the project. Section 7(a)(2) of the 1973 Endangered Species Act requires federal agencies to insure that actions authorized, funded or carried out by them are not likely to jeopardize the continued existence of endangered or threatened species.